

Claims

1. A device for measuring a usage of system resources in
a communication network, said device comprising
5 means for measuring which radio resources are used
by a transmission in a system;
means for measuring which data service units are
used for said transmission in a system; and
means for measuring which transmission
10 characteristics are used by said transmission in a
system, wherein all of said means are adapted for a
respective collective measurement.
2. A device according to claim 1, wherein said
15 transmission characteristics comprise an information
transfer capability information.
3. A device according to claim 1, further comprising
evaluation means for detecting and identifying each
20 respective dependencies of said system resource usage by
evaluating measurement results of said three measuring
means.
4. A device according to claim 1, wherein said device is
25 part of a switching center of said communication network.
5. A device according to claim 1, wherein said device is
part of a base-station subsystem of said communication
network.
- 30 6. A device according to claim 1, wherein said
transmission contains high speed circuit switched data.

7. A device according to claim 1, wherein said transmission contains data which is channel coded according to Enhanced Data rates for GSM Evolution.

- 5 8. A method for measuring a usage of system resources in a communication network, said method comprising the step of

measuring parameters of circumstances of a transmission in a system, said parameters being at least
10 radio resources used by said transmission in a system, data service units used for said transmission in a system, and transmission characteristics used by said transmission in a system, wherein said measuring is carried out collectively.

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9. A method according to claim 8, wherein said transmission characteristics comprise an information transfer capability information.

- 20 10. A method according to claim 8, further comprising the step of

detecting and identifying each respective dependencies of said system resource usage.

- 25 11. A method according to claim 8, wherein said measurements are carried out in a switching center of said communication network.

12. A method according to claim 8, wherein said
30 measurements are carried out in a base-station subsystem of said communication network.

13. A method according to claim 8, wherein said transmission contains high speed circuit switched data.

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14. A method according to claim 8, wherein said transmission contains data which is channel coded according to Enhanced Data rates for GSM Evolution.

5 15. A method for dimensioning system resources for a usage by transmissions in a system, said method comprising the steps of

determining circumstances of said transmissions in a system, wherein said determination is based on results of
10 one of the methods according to claims 8 and 10, respectively, and wherein in said determination step also changes of said circumstances during said transmissions are determined;

calculating an intensity of data traffic in a
15 communication network from reservation times of said data service units used by said transmissions and from release times of said transmissions, considering also a change of a radio channel configuration therein by updating said calculation, wherein said calculation step is performed
20 separately for each of said circumstances of said transmissions;

determining each dependence present between said results of said measurements, said determination steps and said calculation steps;

25 generating statistics including said results of said measurement steps, said determination steps and said calculation steps; and

processing said generated statistics for dimensioning said system resources for said usage by said
30 transmissions in a system.

16. A method according to claim 15, wherein said calculation step is performed separately for each parameter of said circumstances of said transmissions.